

REMARKS

This Amendment is in response to the Office Action dated October 6, 2009. In the office action, unelected claims 1-7 were withdrawn from further consideration, pursuant to 37 CFR 1.142(b), for "there being no allowable generic or linking claim." The specification was objected to lacking title headings. Claims 8-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Davis et al. (U.S. Patent 5,005,694, "Davis") in view of DE 32 26 744. Claims 8-18 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Owen (U.S. Patent 4,817,787) in view of DE 32 26 744. In addition, claims 15-16 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Owen (U.S. Patent 4,817,787) in view of DE 32 26 744 as applied to claim 9, and further in view of Gaston (U.S. Patent 5,007,230).

By the present amendment, claims 1-7 have been withdrawn from consideration. The applicants note that claim 8 is a linking claim to claim 1-7, and that of the claims share the same special technical feature, i.e., x-ray examination of the detonating cord in its packaging prior to shipment. Therefore, claims 1-7 should be examined given that claim 8 is allowable, as discussed in the following paragraphs.

Also, the specification has been amended. No new matter has been added. The descriptions of Figures 1 and 2 in the "Brief Descriptions of the Drawings" section are copied from page 3, lines 14-15 and page 2, lines 18-19 of the originally filed specification.

Claim 1 has been amended to correct a minor informality. Claim 9 has also been amended, and new claim 19 has been added, with support for the amendments found in page 3, lines 14-16 of the originally filed specification, (or paragraph [0016] of the application's U.S. PG-PUB 2007/0170074), "FIG. 1 shows such an X-ray

image of the spiral detonating cord 1 in its packaging.” No new matter has been added. No claims have been cancelled.

At entry of this paper, claims 8-18 will be pending for further consideration and examination in the application. Claims 1-7 have been withdrawn from consideration. All rejections are traversed, in so far as the rejections are applicable to the present claims. Reconsideration and allowance of this application, as amended, is respectfully requested. The Applicants note that the co-pending EPO Application has been found to be allowable and has issued as European Patent EP 1 620 696 B1.

In regards to the rejections of independent claim 8, none of Davis, Owen, or DE 32 26 744, either individually or in combination, disclose, suggest, or otherwise render obvious the features recited in claim 8 of “A method of examining a packaging of a detonating cord, comprising: subjecting the detonating cord to X-ray examination in its packaging prior to shipping.”

According to the Examiner’s admission in pages 3 and 4 of the Office Action, “[t]he difference between the claimed subject matter,” on the one hand, and the Davis and Owen references on the other hand, is that “there is no disclosure of X-ray examination of the detonating cord and its packaging” in either Davis or Owen. In order to remedy this defect in both Davis and Owen, the Examiner applied the DE 32 26 744 reference to Davis, and separately applied the DE 32 26 744 reference to Owen. According to the rejections, the DE 32 26 744 reference “teaches [that] the examination of the detonating cords by a radioactive source is well known.”

The rejections (Davis in view of DE 32 26 744, Owen in view of DE 32 26 744) further state that “[s]ince an X-ray is a source of radiation, the language is broad enough to encompass the examination disclosed by DE 32 26 744. It would have

been obvious to one of ordinary skill in the art to subject the package of [either Davis or Owen] to X-ray examination as taught by DE 32 26 744 for the reason of determining whether or not the detonating cord has any flaws.”

However, the Applicants disagree with the Examiner’s characterization of the DE 32 26 744 reference. According to page 7 of the original German-language document, the paragraph which begins with the phrase “Gemäß Figur 1 wird bei einer Vorrichtung zur Prüfung” is translated as follows: “According to Figure 1, in order to test the filling density of a detonating cord, this cord 1 is unrolled from a feed drum or unwinding drum, specifically by means of a drive roller 4. The cord 1 is guided to a take-up and wind-up drum 3 by way of guide rollers 5, 6, 7 and tensioning rollers 8, 9. The cord 1 is guided past a radioactive source 10, which is situated in front of the cord. If a defect occurs, the sensor that consists of the ionization chamber 11 transmits a signal, and the device is turned off. Subsequently, the defective cord part is removed.”

Therefore, according to this disclosure in the DE 32 26 744 reference, the detonating cord 1 is unrolled from a feed drum, guided past a radioactive source 10, and subsequently wound back up onto a wind-up drum 3, by way of guide rollers 5, 6, 7 and tensioning rollers 8, 9. This is shown in Figure 1 of the DE 32 26 744 reference.

The present invention, on the other hand, expressly recites the feature of “[a] method of examining a packaging of a detonating cord, comprising: subjecting the detonating cord to X-ray examination in its packaging prior to shipping” (emphasis added). Unlike the DE 32 26 744 reference, claim 8 expressly requires that the detonating cord be subjected to X-ray examination in its packaging prior to shipping.

As disclosed in page 2, lines 23-28 of the originally filed specification, (or paragraph [0013] of the application's U.S. PG-PUB 2007/0170074), "In the embodiment illustrated here [Figure 2], the detonating cord 1 is attached to the base plate 2 via a vacuum bag 3. This means that the detonating cord 1 is sealed in a plastics bag, which is in turn attached to the base plate 2. One lap of detonating cord 1 is passed perpendicularly over the flat-wound spiral" (emphasis added).

Furthermore, as disclosed in page 3, lines 14-16 of the originally filed specification, (or paragraph [0016] of the application's U.S. PG-PUB 2007/0170074), "FIG. 1 shows such an X-ray image of the spiral detonating cord 1 in its packaging" (emphasis added). For these reasons, the rejections of claim 8 should be withdrawn. All other claims depend on independent claim 1, and therefore are also allowable.

In regards to the rejections of dependent claims 9 and 19, none of Davis, Owen, or the DE 32 26 744 reference, either individually or in combination, disclose, suggest, or otherwise render obvious the features recited in claim 9 of "[t]he method according to claim 8, wherein the detonating cord is subjected to X-ray examination while the detonating cord is wound in a single plane as a flat spiral, or the features recited in claim 19 of "[t]he packaging according to claim 1, wherein the detonating cord is subjected to X-ray examination while the detonating cord is wound in a single plane as a flat spiral."

As disclosed in the preceding paragraphs, the Examiner admits in pages 3 and 4 of the Office Action that "there is no disclosure of X-ray examination of the detonating cord and its packaging" in either Davis or Owen. In regards to the DE 32 26 744 reference, as disclosed in a preceding paragraph, page 7 of the DE 32 26 744 reference states that "[a]ccording to Figure 1, in order to test the filling density of

a detonating cord, this cord 1 is unrolled from a feed drum or unwinding drum, specifically by means of a drive roller 4.” Therefore, the detonating cord in DE 32 26 744 is not “subjected to X-ray examination while the detonating cord is wound in a single plane as a flat spiral,” in direct contrast to the features recited in claims 9 and 19. For these reasons, the rejections of claim 9 should be withdrawn.

There are numerous benefits of the present invention, as claimed in claims 8 and 9, over the disclosure in the DE 32 26 744 reference. For example, in the present invention, defects that result from storage are discovered. In the DE 32 26 744 reference, defects that arise after detonating cord 1 has been guided past a radioactive source 10, and subsequently wound back up onto a wind-up drum 3, are not discovered. Therefore, the present invention ensures that cords inspected immediately before delivery are defect-free, while the DE 32 26 744 reference does not provide such an assurance. Furthermore, the present invention eliminates the work involved in the step of unwinding the cord from a drum and then rewinding it on a drum, as disclosed in the DE 32 26 744 reference. This saves time and effort.

EXAMINER INVITED TO TELEPHONE

The Examiner is herein invited to telephone the undersigned attorneys at the local Washington, D.C. area telephone number of 703/312-6600 for discussing any Examiner’s Amendments or other suggested actions for accelerating prosecution and moving the present application to allowance.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that the claims listed above as presently being under consideration in the application are now in condition for allowance.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Antonelli, Terry, Stout & Kraus, LLP Deposit Account No. 01-2135 (Docket No. 306.45490X00), and please credit any excess fees to such deposit account.

Respectfully submitted,
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